

2018 Visitor Use Summary for Fossil Creek Wild and Scenic River

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Red Rock Ranger District
Coconino National Forest
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Key Findings and Observations

2018 Statistics

	<u>2017</u>	<u>2018</u>
• Total number of permits reserved:	19,129	14,602
• Total number of permit cancellations:	422	737
• Total number of cars with permits:	11,192	8,509
• Total number of visitors with permits:	52,301	34,444
• Total number of no-show permits:	5,310	3,341
• Total number of unpermitted vehicles turned away:	2,067	422
• Total number of visitors turned away:	5,079	1,154
• Total pounds of garbage collected:	2,490	2,308

Key Comparisons

- **Fossil Creek and Fossil Springs entrances were closed May 23rd until July 11, 2018 because of high fire risk.** Fossil Creek did not close due to wet roads in 2018.
- The number of vehicles turned away decreased approximately 79% between 2017 and 2018.
- “No shows” are the number of vehicles listed on the Daily Arrival Report that did not show up at the permit checkpoint gate. The number of “no shows” decreased by 37 % between 2017 and 2018.
- The number of people with a permit reservation decreased by 34 % in 2018.
- The amount of trash collected decreased 7% from 2,490 pounds in 2017 to 2,308 pounds in 2018. Unlike 2017, the 2018 total includes the amount of garbage removed from the restroom trash cans because Forest Service staff began maintaining the restrooms instead of a contractor.
- The most common incident type in 2018 was “occupancy” which included parking violations where vehicles were parked in the wrong lot.
- The average number of people per vehicle decreased slightly from 4.7 in 2017 to 4.1 in 2018.

Notable Observations

- There was an increase of visitors dropping off their group at a different location and then parking at their permitted lot. This created less available recreational space for visitors who stayed in the area where they reserved parking. USFS personnel received visitor complaints regarding visitors crowding creek space while their vehicle was taken to their reserved parking space.

- Despite repeated efforts, Google maps still indicates that FR708 from Strawberry is open to public through traffic causing many vehicles to be turned away at the Fossil Springs entrance gate.
- On October 6 and 7, which was the first weekend when a permit was not required, there were three forest visitor vehicles that needed to be towed out and one SAR incident involving a rollover on an ATV. The Waterfall parking lot was full by 8:45am and Irving parking lot was full by 10:00am

Operational Changes from Last Year

- Armored creek access trail at the Fossil Creek Bridge.
- Armored creek access trail at the Sally Mae recreation site.
- Permit season ended September 30 instead of October 1st to allow rollover into the new recreation.gov reservation system contract.
- Due to staffing limitations and efforts to reduce operating costs, there was no scheduled USFS Law Enforcement Officer (LEO) or Yavapai County Sherriff Office coverage during the permit season.
- In order to reduce operating costs, USFS personnel were responsible for vault toilet maintenance this season instead of a contractor, which included trash removal from the restroom garbage cans.

Overall Management Observations

2018 was the third year of the Fossil Creek reservation system.

USFS personnel were stationed at the Fossil Springs Trailhead and the FR 708/502 junction every day to check permit on incoming visitors. On the weekends and holidays an added shift was positioned at the Corrals or the 708/260 junction to turn away any non-permitted vehicles attempting the 14-mile drive. The staff stationed at the Corrals was also responsible for providing education about the permit system and information about alternative recreation sites.

At Fossil Springs, most visitors with a permit checked in by 10:00 am to begin the hike. On most weekend mornings, two Pine-Strawberry Search and Rescue volunteers were stationed at the Fossil Springs Trailhead to assist in educating the public about the strenuous hike. Forest Service personnel educated permit holders about the level of difficulty in hiking the Fossil Springs Trail.

In the main Fossil Creek recreation corridor, the busiest time of day for visitor arrival was between 10:00am and noon. Permits for Fossil Springs indicated “Park/8 Mile Hike” to separate them from “Vehicle Parking” permits in the main Fossil Creek recreation corridor which is

accessed from the Camp Verde side. During heavy traffic times in the summer, forest visitors would knowingly reserve a “Park/8 Mile Hike” permit because it was the only permit available to reserve. It was clear to USFS personnel that these forest visitors had no intention of hiking the Fossil Springs Trail and drove to the FR708/HWY 260 entrance instead.

Methods

Data was collected by USFS personnel at three entrance locations: Fossil Springs Trailhead, FR 708/502 Junction and the Corrals/260 junction. Forest Service technicians filled out daily data sheets. Data collection at the Corrals/260 junction was only performed on weekends and holidays. Data was collected from April 1, 2018 to September 30, 2018 with a seven-week gap during the fire closure.

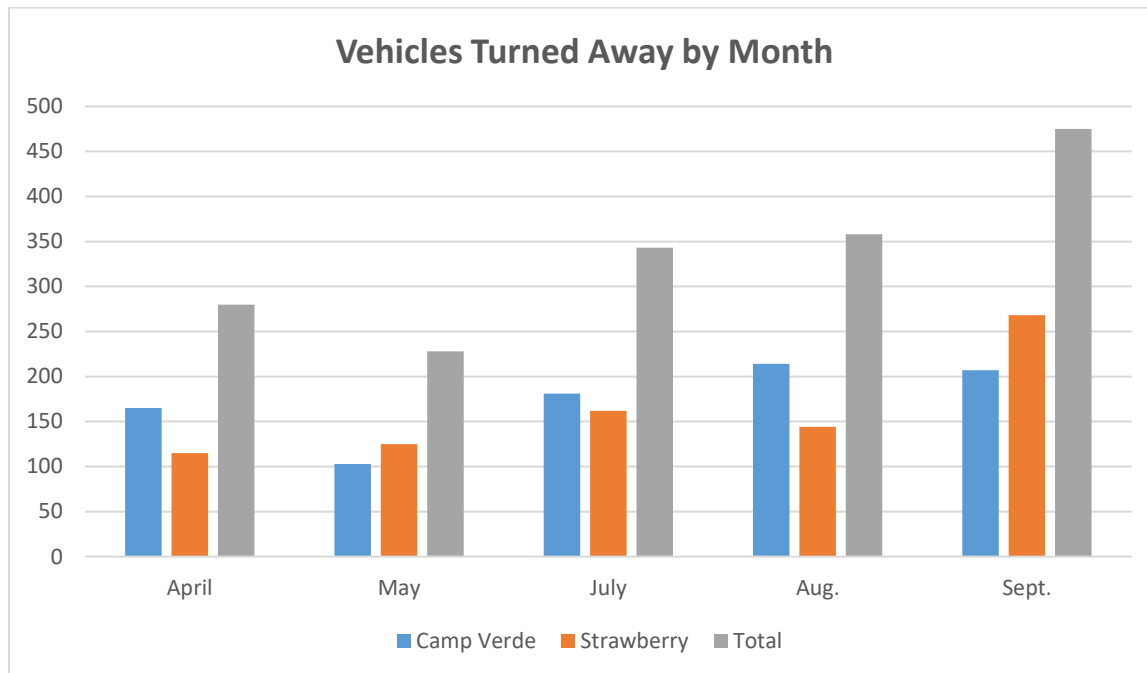
Vehicles and people were counted at the gates when their permits were validated with the Daily Arrival Report (DAR). Number of vehicle and number of people turned away from the entry gates due to not having a permit were also counted. The number of people was calculated by adding up the group size from the DAR of those permits used for the day. Some groups were larger or smaller than what was indicated on the DAR. Changes were corrected on the DAR upon entry. If the number of people turned away was not included on the data sheet then a 3.89 person per vehicle ratio was used to estimate the number of people turned away.

Permit “no shows” were counted daily by Forest Service Technicians. This was completed by tallying up the names that were not crossed off the DAR. The statistics for the total number of permits reserved and cancelled were generated using the website www.recreation.gov.

The “no show” rate was calculated by dividing the total “no shows” by total number of permits reserved. Data for incidents was gathered when USFS personnel were on foot patrol, in a vehicle or stationed at a parking location.

Forest Service technicians kept a daily record of law enforcement incidents and emergency incidents (911 calls). This information was collected from the county sheriff’s offices

Visitor Use



*Figure 1. Total number of vehicles turned away each month at each location and combined total of the two locations. **June not shown due to fire closure May 23-July 10.***

September had the highest total vehicles turned away (Figure 1). The biggest reason for high numbers of vehicles turned away at the Fossil Springs location was from the number of individuals using mobile GPS tracking programs on smart phones to get to the Fossil Creek entrance gate instead of following the directions on the rec.gov website. GPS or Google Maps does not indicate that FR708 has been closed for several years one mile past the Fossil Springs trailhead.

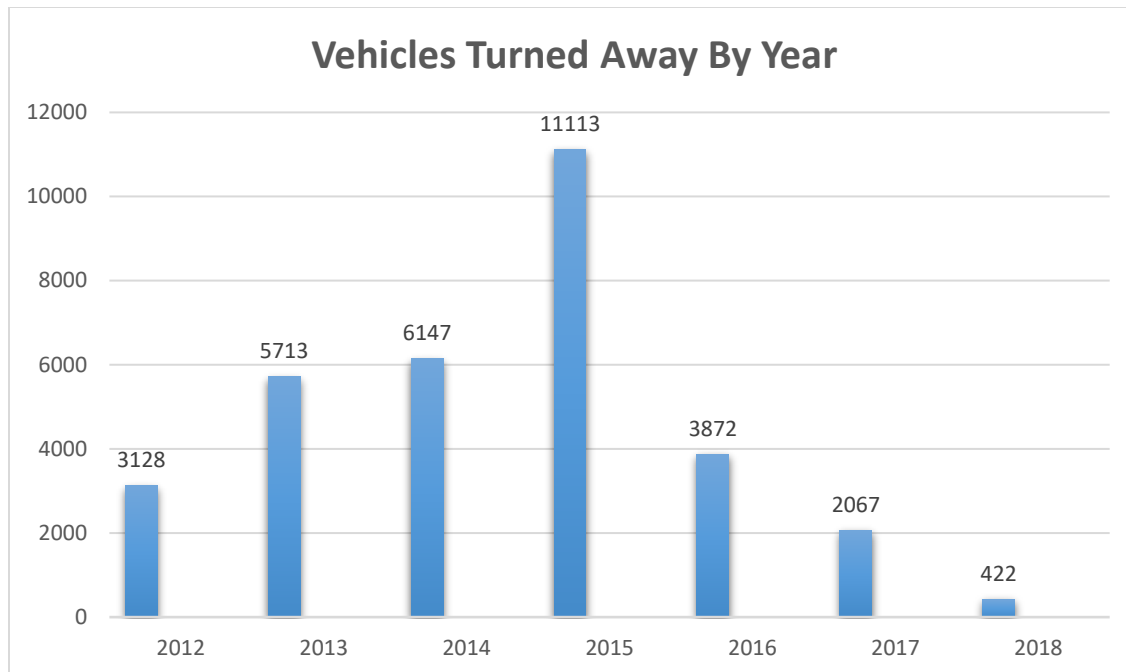
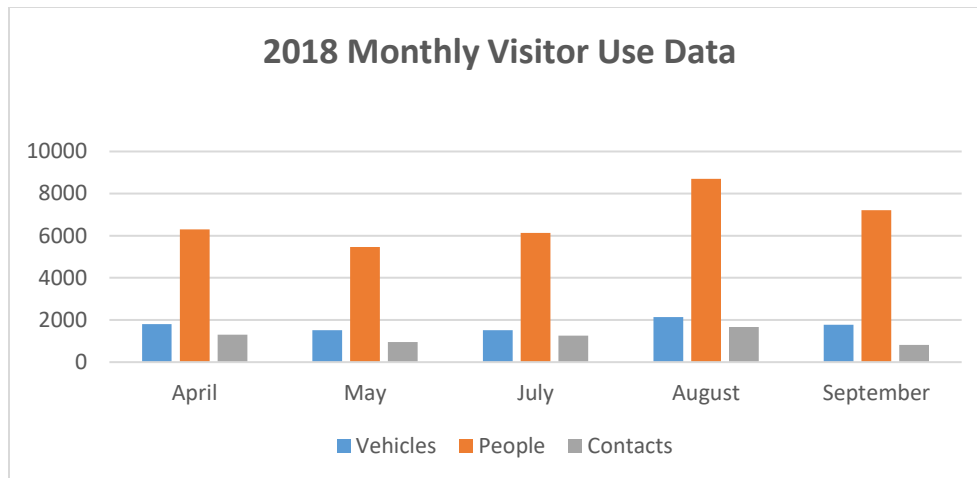


Figure 2. Yearly combined total of vehicles turned away at the Strawberry and Camp Verde entrances.

The number of vehicles turned away decreased substantially between 2017 and 2018 due to the continuance of the Fossil Creek parking reservation system (Figure 2). Number of vehicles turned away in the 2018 season decreased by approximately 80% compared to the 2017 season. Fossil Creek's 2018 permit season started one month earlier than 2017. In 2018 both Fossil Creek entrances were closed from May 23 until July 10, 2018 due to fire danger.



*Figure 3. Monthly total of permitted vehicles let into Fossil Creek and Fossil Springs, people in permitted vehicles, and contacts (individuals who talked to USFS personnel past the entry gate along FR708 and FR502). **June not shown due to fire closure May 23-July 10.***

Visitor use peaked in August (Figure 3). Total number of contacts in 2018 was 6,003, up from 4,876 in 2017.

Estimated Visitor Demand

<i>Year</i>	<i>Total People</i>	<i>Total of People Turned Away</i>	<i>Total Estimated Demand(People)</i>
2012	90,396	10,407	100,803
2013	88,552	22,224	110,776
2014 ¹	34,602	23,911	58,513
2015	86,333	43,229	129,562
2016 ²	47,927	13,238	61,165
2017 ³	52,301	5,079	57,380
2018 ⁴	34,444	1,154	35,598

Table 1. Yearly comparison of visitor numbers from 2012 to 2018.

¹2014: One-month closure of all areas due to extreme fire danger.

²2016: First year of the reservation system

³2017: Permit season started April 1st. Camp Verde entrance closed May 1st to May 16th for vault toilet installation.

⁴2018: Complete closure May 23rd to July 11th due to extreme fire danger.

USFS personnel observed a 77% decline in the number of people turned away at the gate in 2018 (table 1). This reduction was due in part to the seven-week fire closure. Growing public awareness of the requirement for a permit likely also accounts for a portion of the decline.

Permits

People reserved 14,602 permits for the 2018 season with 737 cancellations for a net total of 13,865 reservations made. 14,343 permits were reserved using the recreation.gov website and 259 permits were reserved by phone. The total number of reservations includes those made for May 23 through June 30 prior to the fire closure. The number of cancellations does not include the fire closure period because those permit holders received a full refund.

All parking lots were closed from May 23 through July 10. There were a total of 2,199 reservations which were refunded during the fire closure. 743 reserved permits were refunded for May and 1,456 permits were refunded for June. Permits for July had not been released therefore no permits were refunded for the fire closure in July.

The average group size per permit was 4.06 people.

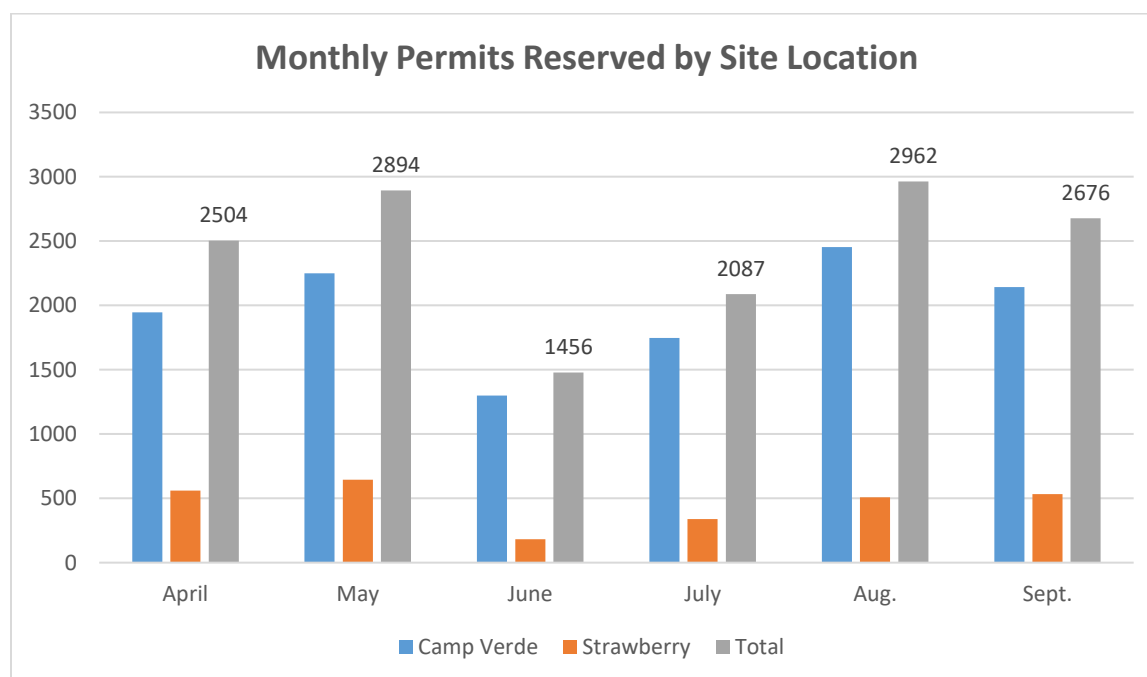
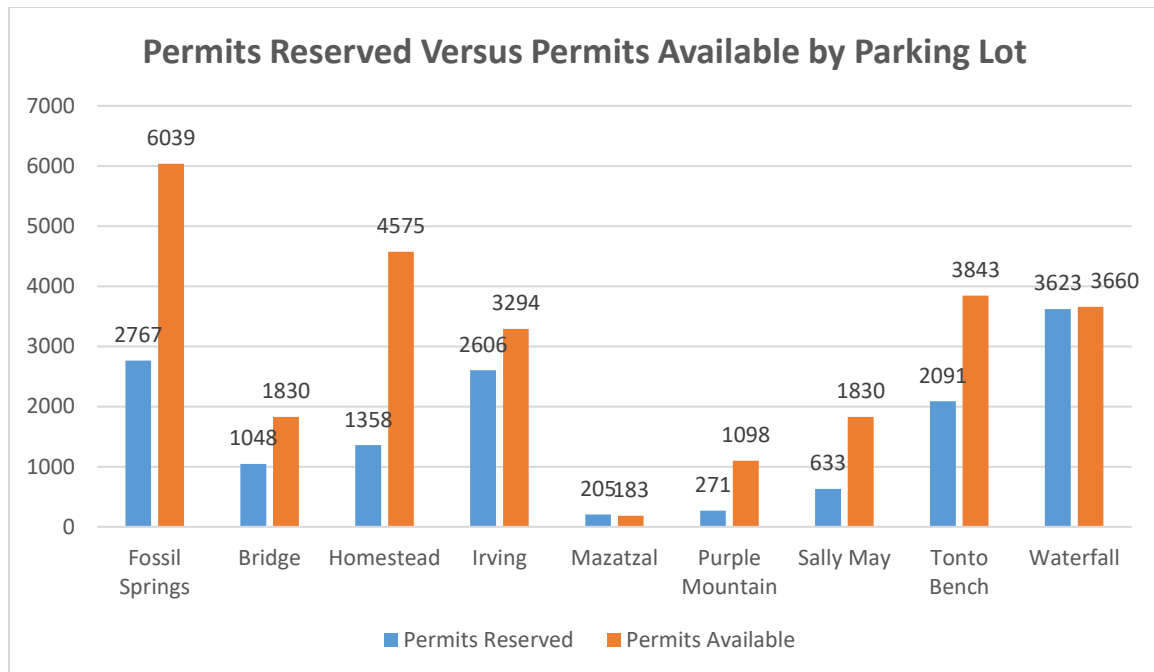


Figure 4. Total number of permits reserved each month for all parking lots. Permits reserved for June are shown to reflect what had already been reserved prior to Fire Closure.



*Figure 5. Total permits reserved at each parking lot and the total number of permits available for each lot for the 2018 permit season. **Permits unavailable May 23 through July 10 during Fire Closure not shown.***

Almost all permits for the Waterfall Trailhead parking lot were reserved (Figure 5). The Waterfall Trailhead parking lot remains in high demand because of its proximity to a widely publicized waterfall. All other parking lots have unused capacity on weekdays. The number of permits reserved on weekdays declined in August and September when school started and monsoon rains were active. All weekends continued to be fully booked through the end of the permit season.

- 26,169 - Reservations available during 2018 permit season.
- 14,602 - Reservations made during 2018 permit season.
- 11,567 - Parking spaces that went unreserved during 2018 permit season.

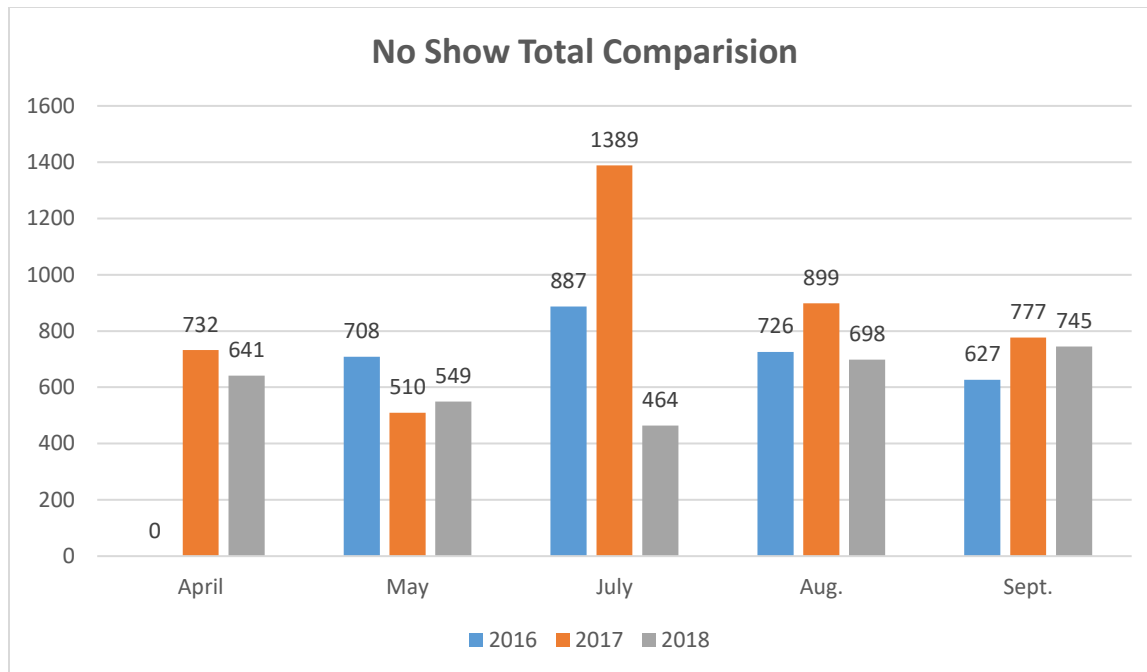


Figure 6. Total number of no-shows by month for 2016, 2017, and 2018.

No- shows are individuals who reserved a parking space but did not arrive at a Fossil Creek gate, and did not cancel their reservation. The month of September indicated the highest number of no shows at 745 vehicles (Figure 6). The total number of no show vehicles decreased by 37% from 2017 to 2018. The number of no shows spiked in July 2017 after the flash flood tragedy in a nearby creek.

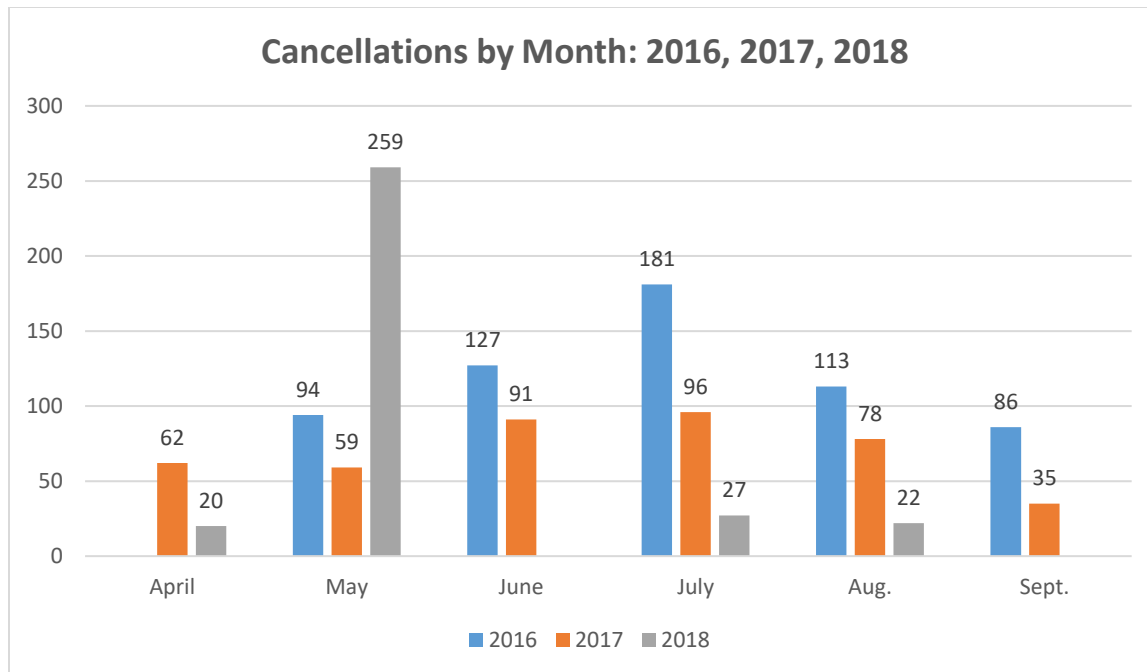


Figure 7. Total number of cancellations each month for all parking lots in 2017 and 2018. June Cancellations not included because a full refund was issued.

The total number of cancellations spiked in May 2018. This was caused by the closure of all Fossil Creek sites from May 23rd to July 11, 2018 due to fire risk.

Incidents

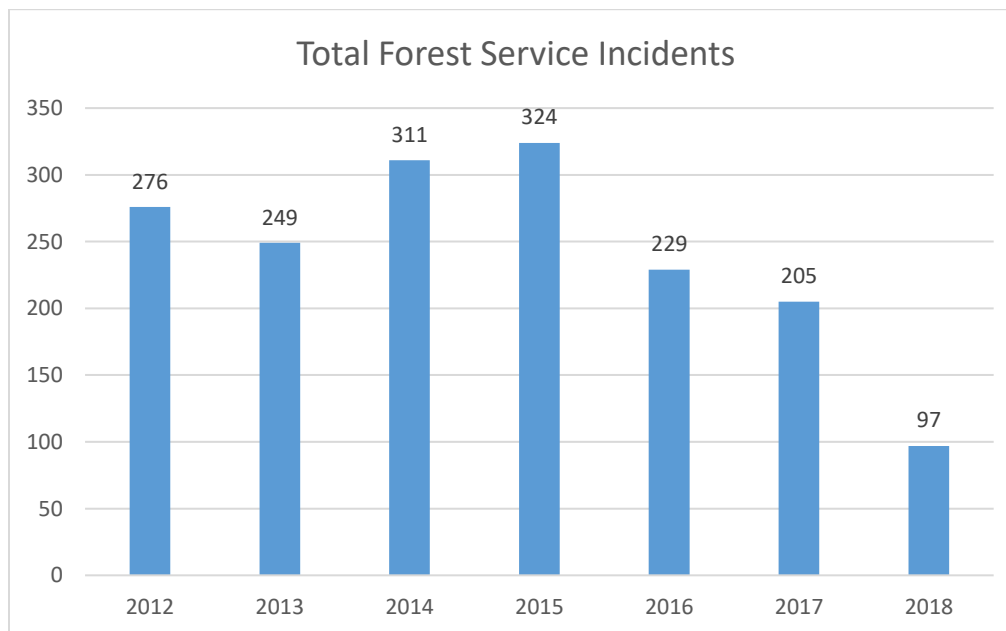


Figure 8. Yearly comparison of total incidents from 2012 – 2018.

Total Forest Service incidents decreased to the lowest number in seven years (Figure 8).

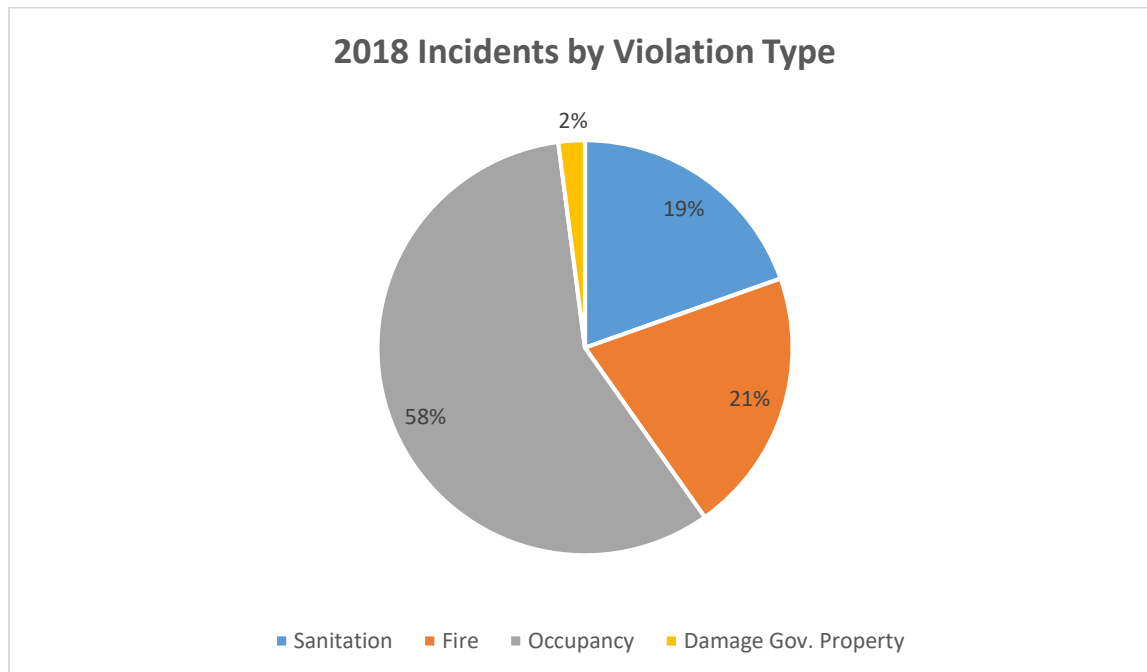


Figure 9. *Forest Service incidents by violation type.*

The total number of Forest Service incidents recorded showed a decrease from the previous seven years (Table 2). Occupancy was the most reported incident type (Figure 9). Occupancy included violations such as illegal camping and parking violations. Vehicles parked in the wrong assigned lot or vehicles not displaying a permit were the majority of occupancy violations.

Incident Type	2016	2017	2018
Sanitation	22	39	19
Fire	22	42	20
Occupancy	158	95	56
Damage Gov Property	26	7	2
Timber	0	0	0
Wildlife Harassment	0	0	0
Fishing in Restricted Area	1	2	0
TOTAL:	229	185	97

Table 2. *Comparison of incident types between 2016, 2017, and 2018.*

Sanitation, fire and occupancy incidents were lower in 2018 due to a seven-week fire closure. With the installation of vault toilets in 2017, there has been a decrease in human waste

sanitation incidents but an increase in garbage left by forest visitors inside the restrooms when trash cans were full.

Incidents reported by County Sheriff's offices:

County SO Reported Incidents (Yearly Totals)

Types of Call	2015	2016	2017	2018
Search & Rescue	20	9	12	6
Medical	18	9	6	2
Welfare Check	0	1	3	0
Motor Assist	1	1	0	0
Agency Assist	0	1	2	2
Forest Service	0	1	0	0
Citizen Assist	2	0	2	0
Suspicious Act	2	0	0	1
Lockout	1	0	0	0
PI Incident (Car Accident)	1	0	0	2
Reckless Driving	2	0	0	0
USFS Unknown Violation	1	0	0	0
Extra Patrol Request	1	0	0	0
Fatalities	0	2	1	0
TOTALS:	49	24	26	13

Table 3. Comparison of total number of reported calls by type in 2015, 2016, 2017, and 2018.

The total number of 911 calls during the reservation season decreased from 26 in 2017 to 13 in 2018 (Table 3). Search and rescue (SAR) numbers reported decreased in 2018 with six incidents reported by Gila County and two incidents reported by Yavapai County. Gila County Sheriff's Office reported two joint rescues with assistance from Yavapai County Sheriff's Office due to access issues on the closed portion of FR708 from Strawberry.

Type of Incident	People				Incidents			
	2015	2016	2017	2018	2015	2016	2017	2018
Dehydration/Unprepared	36	68	25	6	14	12	12	4
Lost or Missing	25	8	14	3	13	2	3	2
Major Accidents	8	2	3	0	9	1	2	1
Minor Injuries	9	1	2	4	9	1	4	2
Other	11	26	5	0	10	7	5	0
TOTALS:	89	104	49	13	55	26	26	9

Table 4. Total number of the types of incidents, and the total number of people involved between seasons 2015 to 2018.

The total number of people is greater than the total number of incidents because multiple people were involved in some incidents (Table 4).

Location Of Incidents	2015	2016	2017	2018
Fossil Creek Rd.	11	0	0	3
Fossil Springs Trail	25	12	14	5
Toilet Bowl	2	1	1	0
Waterfall	7	2	2	2
Tonto Bench	0	1	0	1
Fossil Creek Bridge	0	1	0	1
Mazatzal	0	1	0	0
Fossil Creek General Area	4	3	2	0
The Dam	1	0	3	0
Irving Lot	1	0	0	0
M3 TH	1	0	1	0
Sally Mae	1	0	0	0
Waterfall Trail	1	1	2	1
Flume Trail	1	0	1	0
TOTALS:	55	22	26	13

Table 5. Comparison of incident locations 2015 – 2018.

Recommendations

To help decrease the amount of vehicles arriving at Fossil Springs when their permit was purchased for one of the eight sites accessed from the Camp Verde entrance, an actual physical separate address for both Fossil Springs and the main Fossil Creek recreation corridor could be listed on each permit. Permit holders do not always read the directions provided for them when they make a reservation.

Better signage at each parking location with a numbered parking lot could assist permit holders in locating their permitted area to park in. Currently the parking lots each have a sign with the name of the parking lot listed in English. For example, instead of a parking lot with “Waterfall trailhead” perhaps a sign which reads “Lot 1 Waterfall Trailhead,” may assist forest visitors in parking at the correct location.

Google maps continues to show that FR708 is open to through-traffic. It would alleviate confusion about road access if Google maps would indicate the closed portion of FR708.

A possible method to decrease the amount of no shows could be to change how far in advance someone can secure a permit. For example 80% of permits would be available to be purchased more than one month in advance and 20% of the permits would only be made available one or two days in advance.

Summary

Overall the implementation and third year of the permit reservation system brought challenges and learning opportunities. The seven-week fire closure heavily impacted visitation numbers and incidents in Fossil Creek. USFS personnel experienced a strong monsoon season which also had an impact on visitation.

Monsoon season also brought a different type of recreation opportunity that is seldom seen during the summer in Fossil Creek. USFS personnel reported seeing packrafters on eight different occasions recreating in Fossil Creek. Packrafters would hike from the Flume Trail to the Old Dam Site and boat back to Irving.

Improvement and armoring of access trails during the 2018 season at Fossil Creek Bridge and Sally May improved recreation experiences and protected water quality.

There was a sharp decrease in the number of vehicles that were turned away at permit checkpoint locations. This could be due to the spreading public awareness that a permit is required to recreate in Fossil Creek during busy summer months.

USFS personnel noticed an increase in the number of visitors who would drop off their group at a different swimming location, set up their picnic gear and then only the driver would head back to where the parking permit was issued and park. The driver would usually ride a bike to get back to the parking area where the group was dropped off. The public have found creative ways to bypass the permit system which is impacting other visitors' recreation experience.

USFS personnel reported consistent positive feedback from forest visitors who were supportive of the permit system. Visitors who had previously been to Fossil Creek prior to the implementation of a reservation system expressed gratitude toward USFS personnel for requiring people to have a permit.